Slides 1 and 2 present 1) the daily positive SARS-CoV-2 (virus that causes COVID-19) cases; and 2) an estimate of \( R_{eff} \) (effective reproductive ratio) for Hamilton County and for Greater Cincinnati (slide 1), as well as local counties where \( R_{eff} > 1 \) (slide 2). The 14-county Cincinnati region includes 3 counties in Southeastern Indiana, 3 in Northern Kentucky, and 8 in Southwestern Ohio. The daily incidence is calculated from the cumulative number of COVID-19 cases in each county, which is tracked by the New York Times. \( R_{eff} \) estimates the number of SARS-CoV-2 cases generated by one case in the current state of a population (e.g., \( R_{eff} \) of 1.0 means that someone with COVID-19 infects, on average, one other person). If \( R_{eff} < 1 \), the number of cases slowly declines and the epidemic decays. \( R_{eff} \) is calculated using open-source software, data on laboratory-confirmed cases, and an estimate of the time between someone becoming infected and infecting a second person.

Slide 3: Test results – overall

Slide 3 shows 1) the daily number of SARS-CoV-2 (or COVID-19) tests in health systems in the Cincinnati region; and 2) the percentage of tests that were positive for the virus.

Slide 4: Positives by county

Slide 4 shows the weekly number of positive SARS-CoV-2 (or COVID-19) tests per 10,000 people in each of the 14 counties in the Cincinnati region, which allows for comparing positive testing rates across counties with varying populations.
State and local health departments

Hamilton County, Ohio

R = 1.37*

Estimated R

0 1 2 3

Daily incidence

0 25 50 75

04−01 05−01 06−01

14 county area

R = 1.12*

Estimated R

0 2 4 6

04−01 05−01 06−01

Daily incidence

0 50 100 150

Data from The New York Times, based on reports from state and local health agencies.
R estimates by county

Counties where the current R estimate is greater than 1

Dearborn County, Indiana
R = 1.11

Ripley County, Indiana
R = 1.57

Campbell County, Kentucky
R = 1.27

Clermont County, Ohio
R = 1.16

Clinton County, Ohio
R = 1.11

Hamilton County, Ohio
R = 1.37*

Red R value and * indicate that lower bound is greater than 1. Data from The New York Times, based on reports from state and local health agencies. Pulled on: 2020−06−18.
Test results - overall

Percentage of test results returned positive

- Common variation
- % of test returned positive

Source: The Health Collaborative data as of 06/18/2020.
Positives by county

Weekly positive tests for Covid−19 per 10,000 people